Infrastructure Management Risk Assessment in Paris : sewage system and utilidors

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- The sewage system in Paris
- The risk analysis
- What about utilidors
- What are the next steps for the future ?

PARIS' WATER CYCLE AND ACTORS IN CHARGE





FOCUS ON THE SIAAP

Paris Agglomeration Association for Sanitation



Service public de l'ossainssement fonction

COLLECTION AND TRANSPORT FACILITIES





MONITOR : Collect Informations







Risk prioritization

Risk note by section



Risk Map (local approach)

- Wedging of the model
 - Observed disorders
 - Measured stifness
 - Samples and measurements
- Risk Map :









UTILITY SERVICES : The Technical Gallery



Delivered requests

479 Requests where delivered for the installation of optical fiber optics : local authorities, police and private operators



Also 169 projects of pipelines were proposed : 61 for Paris water company and 108 for cooling Paris.



Collecteur Capucines (avenue de l'Opéra)

Paris Cooling company

108 projets were requested in 2023 => In 2022 (19 requests). PPP for 20 years with an objective of 70 à 80 installations to be realised realised in Paris.



Evolution nb IT FDP par circonscription



EST OUEST SUD

Requests from FDP received in 2023



Utilidors in France

The example of Paris sewage system is unique in France. In the XXth century, all the networks are buried separately. The urban soil is full for cables and pipes.

Then, From the 1950s to the 1970s, reconstruction and then the demographic shock led to the expansion of cities.

The development of new neighborhoods on virgin land, according to town planning operations coordinated by the State, will revive the concept and a few dozen cities will equip themselves with technical galleries.

At the end of the century, in order to relaunch this technical solution with sustainable city objectives, the Clé de Sol project will work on developing a guide to which we will return.



History of the development of utilidors in France



Grenoble, la Villeneuve

- Galery realised in the 60th, urban renovation of la Villeneuve.
- 1889 housings and other public services.

All categories of networks especially pneumatic collection were implemented
No gas

Design methods of utilide

Design L. Legrand PhD





représentation finale du profil trapézoïdal

représentation finale du profil circulaire



Production / Distribution / Delivery to the final users





Conclusion

- Utilidors is very complex system and the coordination between operators is crucial
- The development is possible when it is available
- The climate change concerns and the need of cooling networks in Paris is very positive for the sewage / utilidors system of Paris
- In Paris, the number of stakeholders involved in water management and in the maintnenace policy is very important....
- There is spatial scale concern to be analysed and considered
- The sewage system management is Paris is very performant : It is an integrated approach. Structural and hydraulic
- The coordination to have a management as an utilidors is very crucial for the future...